UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/444,889	11/22/1999	MICHAEL G. MIKURAK	60021-336701	9216

29838   7590   08/07/2008
OPPENHEIMER WOLFF & DONNELLY, LLP
PLAZA VII, SUITE 3300
45 SOUTH SEVENTH STREET
MINNEAPOLIS, MN 55402-1609

EXAMINER
ROBERTSON, DAVID

ART UNIT	PAPER NUMBER
3623	

MAIL DATE	DELIVERY MODE
08/07/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	09/444,889	MIKURAK, MICHAEL G.
	Examiner	Art Unit	
	Dave Robertson	3623	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>05 May 2008</u>.
2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>18,22,28 and 32-61</u> is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>18,22,28 and 32-61</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All b) ☐ Some * c) ☐ None of:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. _____.
    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date <u>6/27/08</u>.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   This is a Non-final office action after the filing of a Request for Continuation

(RCE).   Claims 18, 22, 28, and 32-61 are pending.

Continued Prosecution Application

2.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

4/14/2008 has been entered.

Response to Amendment

2.   Applicant amends claims 38, 44, and 50 to clarify the scope of the claimed

invention in response to rejections under 35 USC 112, second paragraph, set forth in

the previous office action. However, the current amendments do not fully address all

issues raised and further introduce new issues as to indefiniteness as detailed in the

updated rejections below.

3.   Applicant adds new claims 56-58 further reciting the intended actors within the

method as being a manufacturer who is a network bandwidth provider and the service

provider being network bandwidth distributor. New claims 59-61 recite the monitoring

step as adjusting schedules and transmitting adjusted schedules to the manufacturers

and providers according to the monitoring. These new claims are addressed in the

updated rejections to follow.

Response to Arguments

4.   Applicant's arguments with regards to the rejections based on Sekizawa (U.S.

6,430,711) in view of Peterson et al. (U.S. 6,324,522); and Sekizawa in view of

Peterson and Haluska (U.S. 5,638,519) have been fully considered, but are not

persuasive:

        Applicant argues distinction of the amended claims over Sekizawa in view of

Peterson and Haluska because the claims now recite 1) that is it a *manufacturer* who is

the entity providing notices for recommended maintenance and service; 2) that the e-

commerce supply chain manager *also manages numerous entities within an e-*

commerce supply chain environment; 3) that the manufacturers and service providers

perform other activities in a supply chain environment; and 4) that monitoring and

tracking of availability, schedules, and progress of completing scheduled maintenance

is now provided including adjusting schedules according to the progress (Remarks,

pages 12-14). Applicant asserts that none of the cited references teaches these

features, and further, specifically, that the "after sales service" application of Sekizawa,

not being in *the supply chain environment* cannot teach or suggest a method for

providing maintenance and service between manufacturers and service providers as

now recited in the independent claims.

As to the new and amended *functional* limitations asserted as not taught or suggestion by the cited art, Examiner refers to the updated rejections to follow.

As to newly amended limitations reciting the specific environment (supply chain), actors (manufacturers and service providers), and other activities (ordering, fulfillment, logistics, etc.) performed in conjunction with managing maintenance and service requests, including the specifically argued distinction between the present invention being *in the supply chain environment* and Sekizawa being directed to *after sales service*, Examiner notes that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. That is, if the claimed method of managing maintenance and service in a supply chain environment does not differ substantively from the prior art teaching of managing of maintenance and service in another environment, then the teaching may be fairly applied as analogous art, solving the same problem in similar ways, and the particular environment in which the method is performed is moot, regardless of what other unrelated activities the actors may be performing unless those other activities have structural and substantive effect on the claimed method.

In the present claims, the method of managing maintenance and service requests includes the following basic steps:

receiving notices for recommended maintenance and service;

receiving requests for maintenance and service;

planning demand and supply of offerings;

monitoring availability of maintenance and service providers;

matching notices and requests according to provider availability;

scheduling maintenance and service according to the matching;

transmitting the schedule to maintenance and service requestors;

tracking the progress of scheduled maintenance and service; and

performing maintenance and service based on the schedule.

That the claims recite that is a manufacturer making the requests or that the manager receiving requests is also performing standard supply chain activities (e.g. demand and supply planning, order management, distribution logistics...) within a supply-chain environment does not change the functional steps of the method as above in comparison to analogous art performing the same, equivalent, functions in another environment. None of the steps of *receiving notices and requests, planning, monitoring, matching, scheduling, transmitting, performing or tracking* is functionally changed as a result of the actors or other activities being *in a supply chain environment*, therefore, these elements of the claims recite intended use.

Furthermore, even if giving weight to the recited elements as invoking more than intended use, the combination of known methods to yield predictable results, if known to one of ordinary skill in the art where each of the elements would have performed the same function as it did separately, is an obvious combination. See *KSR International v Teleflex Inc.* 82 USPQ2d 1385 (2007).

Accordingly, the grounds of rejection of the previous office action are maintained below as updated for the newly amended and new claims added by amendment.

Claim Rejections - 35 USC § 112

5.　　The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

5.　　Claims 18, 22, 28, and 32-61 are rejected under 35 U.S.C. 112, second

paragraph, as being indefinite for failing to particularly point out and distinctly claim the

subject matter which applicant regards as the invention.

　　　　Claim 38 recites a steps (c) *planning demand and supply of offerings from the*

plurality of manufacturers based upon availability of offerings within the e-commerce

supply chain environment. However, it is unclear how the planning of *offerings* relates

to the managing of maintenance and service notices and requests and the monitoring of

maintenance and service request schedules. The *offerings from the plurality of*

manufacturers appears to be related to the general other activities of a supply chain and

not relevant to the *notices and requests for maintenance and service.* Therefore, for the

purposes of examination, this step of *planning…offerings* will be interpreted as a step in

the generalized other activities of a standard supply chain environment. Claims 44 and

50 also recite a similar step and are similarly deficient. Claims 18, 22, 28, 32-37, 39-43,

45-49, and 51-61 depend from claims 38, 44, and 50 are likewise deficient as above.

　　　　Claim 42 recites a step of *sending feedback response to* <u>*the plurality of*</u>

<u>*environment users*</u> *of the e-commerce supply chain environment.* However, the phrase

environment users was amended out of the parent claim 38 and therefore there is no

longer antecedent basis for *the plurality of environment users.* Claims 48 and 54 recite

a similar step and are similarly deficient. <u>Appropriate amended is requested.</u>

Claim Rejections - 35 USC § 101

6.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7.   Claims 18, 38-43, 56 and 59 are rejected under 35 U.S.C. 101 based on

Supreme Court precedent, and recent Federal Circuit decisions. For a process to be

patentable subject matter under § 101 the process must (1) be tied to another statutory

class of invention (such as a particular apparatus) or (2) transform subject matter to a

different state or thing. See Diamond v. Diehr, 450 US 175, 184 (1981); Parker v Flook,

437 US 584, 588 n9 (1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972); Cochrane v.

Deener, 94 US 780, 787-88 (1876). If neither of these requirements is met by the claim,

the method is not a patent eligible process. To qualify under § 101 as a statutory

process, the claim should positively recite the other statutory class (the thing or product)

to which it is tied, for example by identifying the apparatus that accomplishes the

method steps, or positively recite the subject matter that is being transformed, for

example by identifying the material that is being changed to a different state.

        In the present case, none of the claimed method (a process) steps recite a tie to

another statutory class of invention or transform an article to a different state or thing.

Each of the steps of the method may be performed by a human, by hand, or by mental

steps and none is positively recited as being performed by any particular apparatus. As

such the claims are ineligible for patenting and therefore nonstatutory under 35 U.S.C.

101.

8.   Claims 22, 28, 44-55, 57, 58, 60, and 61 are rejected under 35 U.S.C. 101

because the claimed invention is directed to non-statutory subject matter. The claims

recite: *A computer program embodied on a computer readable medium...comprising*

code segment(s) for performing… However, a computer program per se, even if stored

on a computer readable medium, is nonstatutory subject matter. Examiner notes that

Applicant claims a *computer program…comprising…code segments for*… as opposed

to the claiming of a *computer readable medium…comprising instructions performed by*

a computer…for. While a computer readable medium, a product claim, is statutory, a

computer program comprising code segments is not. Appropriate amendment is

requested

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 18, 22, 28, and 32-38, 40-44, 46-50, and 52-61 are rejected under 35

U.S.C. 103(a) as being unpatentable over Sekizawa (U.S. 6,430,711) in view of

Peterson et al. (U.S. 6,324,522).

As per claim 38, Sekizawa discloses a method for maintaining and servicing a

network-based commerce supply chain environment, comprising:

(a) receiving at an e-commerce manager from a plurality of provider environment

users a plurality of notices for recommended maintenance and service (See column 2,

line 50-column 3, line 25, column 4, lines 50-65, column 5, lines 40-50, and column 6,

lines 55-65, wherein users recommend maintenance and service using the network);

(b) receiving at the e-commerce manager from a plurality of consumer

environment users a plurality of requests for maintenance and service (See figure 28

and column 2, line 50-column 3, line 28, column 4, line 50-column 5, line 10 and 40-50,

and column 6, lines 1-6 and 55-65, column 7, lines 25-50, and column 8, lines 1-17,

wherein the second framework user requests maintenance and service via the system);

(d) and (e) matching provider environment users with consumer environment

users and scheduling maintenance and service at the manager in a managed schedule

based on the plurality of notices from the plurality of provider environment users

matched to the plurality of requests from the plurality of consumer environment users

(See column 2, line 50-column 3, line 25, column 4, lines 50-65, column 5, lines 40-50,

column 6, lines 55-65, column 7, line 59-column 8, line 36, wherein maintenance and

service is scheduled using the requests and notices received via the system);

(f) transmitting the managed schedule for maintenance and service to the

plurality of users who requested or recommended maintenance from the e-commerce

manager (See figure 28 and column 4, lines 50-65, column 5, lines 40-60, and column

6, lines 55-65, column 8, lines 1-36, wherein the scheduling is made known to the users

who recommended the maintenance via a phone call);

(g) performing maintenance and service of the e-commerce supply chain

environment based on the schedule (See column 4, lines 5-25 and 40-62, column 7,

lines 35-50, and column 8, lines 1-7, wherein maintenance is performed. See also

figure 20 and column 2, line 50-column 3, line 25 and 45-55, column 5, lines 40-50, and

column 6, lines 55-65, wherein other maintenance is performed).

However, Sekizawa does not expressly disclose and Peterson et al. discloses:

(c) planning supply and demand of manufacturer and service provider offerings

based upon offering availability within the e-commerce supply chain environment (See

column 1, line 60-column 2, line 5, column 3, lines 25-35, column 4, lines 15-32 and 43-

55, column 5, line 45-column 6, line 5, wherein manufactures plan offerings inventory

based on the supply and demand information communicated via the network based

system. See column 1, line 60-column 2, line 5, column 3, lines 25-35, column 4, lines

15-32 and 43-55, column 5, line 45-column 6, line 5, wherein the manufacturer

manages orders and timing of orders using the network based system); and

(d) managing notices and requests for maintenance and service according to

demand and supply of manufacturer and service provider offerings (See column 1, line

60-column 2, line 5, column 3, lines 25-35, column 4, lines 15-32 and 43-55, column 5,

line 45-column 6, line 5, wherein the manufacturer manages orders and timing of orders

using the network based system).

Peterson et al. further discloses (c) providing maintenance and service for the

network-based supply chain environment, including updates and data scrubbing (See

figures 4 and 5, column 6, lines 40-46, column 46, line 3-column 47, line 5, which

discloses network maintenance performed on the network based supply chain

management system of the vendors and manufacturers).

Both Sekizawa and Peterson et al. are concerned with maintenance and service,

as communicated via the network. Peterson et al. teaches a network based supply

chain system where manufacturers manage orders for vendors and network

maintenance is performed. Sekizawa discloses maintenance and service in an e-

commerce environment. It would have been obvious to one of ordinary skill in the art at

the time of the invention to include the manufacturer features of Peterson et al. in the

maintenance functions taught by Sekizawa in order to more efficiently integrate all

information in an information network that distributes information, such as manufacturer

and inventory information and maintenance information, amongst the users. See

column 1, line 60-clumn 2, line 7, and column 46, line 3-column 47, line 5, of Peterson
et al.

As per claim 18, Sekizawa teaches performing load-balancing services that
initiate and stop processes as utilization levels vary in the e-commerce supply chain
(See column 6, lines 10-35, which discloses load balancing).

As per claim 32, Sekizawa teaches wherein the step of performing scheduled
maintenance and service includes indexing received feedback from environment users
(See figures 4, 9-12, and 30, column 7, lines 59-67, column 19, lines 35-45, column 20,
line 40-column 21, line 10, wherein the user is given a change request, the system has
a mail box for receiving change requests, and the system saves this data. See also
column 22, lines 25-55, column 23, lines 1-30, column 33, lines 35-65, column 34, line
55-column 35, line 25).

As per claim 40, Sekizawa teaches wherein the step of performing maintenance
and service of the e-commerce supply chain environment comprises synchronizing data
stored separately from the e-commerce supply chain environment with data stored in
the e-commerce supply chain environment (See column 4, lines 5-25 and 40-62,
column 7, lines 35-50, and column 8, lines 1-7, wherein the external, global, data and
the local data is synchronized).

As per claim 41, Sekizawa teaches wherein the step of performing maintenance
and service of the e-commerce supply chain environment comprises optimizing at least
one operation of the environment from the group consisting of server processes, disk
space, memory availability, CPU utilization access time to a server, and a number of

connections in a network-based supply chain for efficient system-operation and problem prevention (See figure 20 and column 2, lines 50-67, column 3, lines 1-25 and 45-55, column 5, lines 40-50, and column 6, lines 55-65, wherein at least one operation of the environment is monitored for optimization, including memory availability).

As per claim 42, Sekizawa teaches wherein the step of performing maintenance and service of the e-commerce supply chain environment comprises sending feedback response requests to the plurality of environment users of the e-commerce supply-chain environment (See figures 4, 9-12, and 30, column 7, lines 59-67, column 19, lines 35-45, column 20, line 40-column 21, line 10, column 22, lines 25-55, column 23, lines 1-30, column 33, lines 35-65, column 34, line 55-column 35, line 25, wherein the user is given a change request and there is a mail box for receiving change requests. Also, the user can input information requested by the system, such as error information, status information, customer information, etc.).

As per claim 43, Sekizawa teaches searching the data stored in the e-commerce supply chain environment prior to synchronization (See column 4, lines 5-25 and 40-62, column 7, lines 35-50, and column 8, lines 1-7, wherein the status data of the local machines are searched prior to the synchronization).

As per claim 33, Sekizawa teaches wherein the data stored in the e-commerce supply-chain environment is indexed according to a profile for each environment user's profile (See figures 4, 9-12, and 30, column 7, lines 59-67, column 19, lines 35-45, column 20, line 40-column 21, line 10, wherein information is entered in the system and saved based on the user profile. For example, the user is given a change request, the

system receives change requests, and the system saves this data with the profile of the user. See also column 22, lines 25-55, column 23, lines 1-30, column 33, lines 35-65, column 34, line 55- column 35, line 25).

As per claim 56, reciting: *wherein the manufacturer is a network bandwidth provider and the service provider is a network bandwidth distributor.* A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. None of the steps of the method of claim 38 which claim 58 incorporates result in a structural difference with the manufacturer or service provider being in the *network bandwidth* environment. Therefore, claim 56 is rejected as above for claim 38.

Claims 44, 22, 34, 46-49, 35, 57, and 58 recite equivalent limitations to claims 38, 18, 32, 40-43, 33, and 56, respectively, and are therefore rejected using the same art and rationale as applied above.

Claims 50, 28, 36, 52-55, and 37 recite equivalent limitations to claims 38, 18, 32, 40-43, 33, and 59, respectively, and are therefore rejected using the same art and rationale as applied above.

9.   Claims 39, 45, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sekizawa (U.S. 6,430,711) in view of Peterson et al. (U.S. 6,324,522) and in further view of Haluska (U.S. 5,638,519).

As per claim 39, Sekizawa teaches wherein the step of performing maintenance and service of the e-commerce supply chain environment comprises updating internal data items stored in the environment (See column 4, lines 5-25 and 40-62, column 7, lines 35-50, and column 8, lines 1-7, wherein the internal data items of the local framework are updated). However, Sekizawa does not expressly disclose updating internal data items selected from the group consisting of merchandising content, currency exchange rates, tax rates, and pricing information.

Peterson et al. discloses providing maintenance and service for the network-based supply chain environment, including updates and data scrubbing (See figures 4 and 5, column 6, lines 40-46, column 46, line 3-column 47, line 5, which discloses network maintenance performed on the network based supply chain management system of the vendors and manufacturers). However, Peterson et al. does not expressly disclose and Haluska discloses updating internal data items selected from the group consisting of merchandising content, currency exchange rates, tax rates, and pricing information (See figures 4-6, column 3, lines 25-40 and 45-65, column 5, lines 1-25, column 7, lines 35-60, and column 11, lines 35-65, wherein pricing information is updated);

Sekizawa and Peterson et al. are combinable for the reasons set forth above with respect to at least claim 38. Further, both Haluska and Sekizawa disclose manufacturers providing services and supplies to users of the network. Sekizawa further discloses the ability to update internal information such as the customer information. It is well known in marketing and sales to customize merchandising

content and/or pricing information to the customer and the customer's information.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to update at least the merchandising content and/or the pricing information

based on this change in customer information in order to more efficiently meet the

needs of the customers of the system by maintaining universal and updated information

accessible by all users of the network that correctly matches the needs/information

about the customers. See column 2, lines 50-67, of Haluska and column 2, lines 45-67,

of Sekizawa.

      Claim 45 recites equivalent limitations to claim 39 and is therefore rejected using

the same art and rationale as applied above.

      Claim 51 recites equivalent limitations to claim 39 and is therefore rejected using

the same art and rationale as applied above.

9.   Claims 59, 60, and 61 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Sekizawa (U.S. 6,430,711) in view of Peterson et al. (U.S. 6,324,522)

as applied to claims 38, 44, and 52 above, and further in view of Huang et al (5,953,

707 as cited in IDS of 6/27/2008).

      As per claim 59, Sekizawa does not teach monitoring the progress of a plurality

of manufacturers completing scheduled maintenance and service including *adjusting*

the schedule according to the progress.

      Huang et al, however, directly in the field of supply chain planning and monitoring

of activities, includes a step and means for maintaining future activity data including

planned equipment upgrade/maintenance schedules for the purpose of improving the ability to track and monitor such schedules for better overall management of maintenance over the supply chain (see column 30 from line 24; column 56 from line 47; column 64 from line 47; activity schedules for all the equipment at the equipment location such as equipment upgrade/maintenance schedules (preventive and breakdown maintenance schedules with planned activity schedules for all equipment at the equipment location). It would have been obvious to one of ordinary skill in the art at the time of the invention to improve Sekizawa by monitoring maintenance activity schedules and progress in a supply chain environment as in Huang, as this would have achieved the aims of Huang in maximizing the productive capacity of the supply chain by ensuring that maintenance activities were performed in a timely manner, thereby improving overall efficiency of the supply chain in the production of goods and services.

Claim 60 recites equivalent limitations to claim 38 and is therefore rejected using the same art and rationale as applied above.

Claim 61 recites equivalent limitations to claim 38 and is therefore rejected using the same art and rationale as applied above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BETH VAN DOREN whose telephone number is (571)272-6737. The examiner can normally be reached on M-F, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dave Robertson/
Examiner, Art Unit 3623

/Beth V. Boswell/
Supervisory Patent Examiner, Art Unit 3623